

Appn No. 10/760,275
Amdt. Dated March 16, 2006
Response to Office Action of January 20, 2006

2

Amendments to the Specification:

The Paragraph beginning at Page 3, lines 26-27, is to be amended as follows:

Figure 7 is a plan view of the underside of a base molding of the cartridge revealing a number of printing fluid conduits.

The Paragraph beginning at Page 7, lines 6-16, is to be amended as follows:

The purpose of the pressurized air is to prevent degradation of the printhead by keeping its nozzles free of dust and debris. The pressurized air is provided by an air compressor (item 122 of Figure 133) incorporated into cradle 4. An air nozzle (item 124 of Figure 133) of the compressor pierces air seal 44 upon insertion of cartridge 6 into cradle 4 and mates with air inlet port 76. An air coverplate 54 is fixed to the cartridge base molding and evenly distributes air across printhead 52 in the manner described above.

Power and data signals are provided to printhead 52 by means of busbar 56 which is in turn coupled to external data and power connectors 58A and 58B. An authentication device in the form of a quality assurance (QA) chip 57 is mounted to connector 58A. Upon inserting print cartridge 6 into cradle 4 the data and power connectors 58A and 58B, and QA chip 57, mate with corresponding connectors (items 84A, 84B of Figure 3) on cradle 4, thereby facilitating power and data communication between the cradle and the cartridge. QA chip 57 is tested in use by a portion of controller board 82 configured to act as a suitable verification circuit.

The Paragraph beginning at Page 8, lines 20-21, is to be amended as follows:

The ink jet printhead chip 52 (see Fig. 6) includes a silicon wafer substrate 8015. 0.35 Micron 1 P4M 12 volt CMOS microprocessing circuitry is positioned on the silicon wafer substrate 8015.

The Paragraph beginning at Page 12, lines 24-26 is to be amended as follows:

With reference to Figure 25, drive shaft 127 of motor 110 terminates in a worm gear 129 that meshes with a cog 125B that is, in turn, fixed to drive roller 96. Referring again to Figure 26, the drive roller is supported at either end by bearing mount assemblies 100A and 100B, which are in turn fixed into slots 101A and 101B of cradle mounting 80 (see also Fig.

CH
8/31/03

AppIn No. 10/760,275
Amdt. Dated March 16, 2006
Response to Office Action of January 20, 2006

3

30). Similarly, rotor element translation roller 94 and pinch roller 98 are also supported by bearing mount assemblies 100A and 100B.

The Paragraph beginning at Page 15, lines ⁶⁻¹⁰~~10-12~~, is to be amended as follows:

Referring now to Figure 34, from the highest point of view a SoPEC device consists of 3 distinct subsystems: a Central Processing Unit (CPU) subsystem 301, a Dynamic Random Access Memory (DRAM) subsystem 302 and a Print Engine Pipeline (PEP) subsystem 303.

CA
8/31/07

The Paragraph beginning at Page 22, lines 6-13, is to be amended as follows:

At the bottom of base molding 170 there extends a lug 190, which acts as a locating feature, shaped to mate with refill port of an inkjet printer component such as the ink refill port 8 of printer cartridge 6. The position of outlet pipe 182 and collar 172 relative to lug 190 is varied depending on the type of printing fluid which the ink refill cartridge is intended to contain. Accordingly, a printing fluid system is provided comprising a number of printing fluid dispensers each having an outlet positioned relative to lug 190 depending upon the type of printing fluid contained within the dispenser. As a result, upon mating the refill cartridge to port 8, outlet ~~192-182~~ mates with the appropriate inlet 42A-42E and hence refills the particular storage reservoir 28, 30, 32, 34 dedicated to storing the same type of printing fluid.

The Paragraph beginning at Page 23, lines 3-8, is to be amended as follows:

As can be seen in Figure 27, the inner walls of recess 89 form a seat or shelf upon which cartridge 6 rests after insertion. A number of resilient members in the form of springs ~~190-91~~ are provided to act against the cartridge as it is brought into position and also against the retainer catch, as it is locked over the cartridge. Consequently the springs act to absorb shocks during insertion and then to hold the cartridge fast with the cradle 4 and latch 7 ~~by securely by~~ securely biasing the cartridge in place against the latch. In an alternative the springs might instead be located on latch 7 in which case cartridge 6 would be biased against cradle 4.

The Paragraph beginning at Page 23, lines 20-26, is to be amended as follows:

A remote computational device, such as a digital camera or personal computer, is connected to USB port 130 in order to provide power and print data signals to cradle 4. In

Appln No. 10/760,275
Amdt. Dated March 16, 2006
Response to Office Action of January 20, 2006

4

response to the provision of power, the processing circuitry of controller board 82 performs various initialization routines including: verifying the manufacturer codes stored in QA chip 57; checking the state of ink reservoirs 28 - 34 by means of the ink reservoir sensor ~~35~~(1101 shown); checking the state of rotor element 60 by means of sensor 156; checking by means of paper sensor 192 whether or not paper or other print media has been inserted into the cradle; and tricolor indicator LED 135 to externally indicate, via lightpipe 136, the status of the unit.

The Paragraph beginning at Page 24, lines 10-19, is to be amended as follows:

Subsequent to detecting a print command at USB port 130 and confirming the presence of print media, controller board 82 drives motor 110 so that drive roller 96 begins to rotate and, in cooperation with pinch roller 98, draws the print media past printhead 52. Simultaneously, controller board 82 processes print data from the external computational device in order to generate control signals for printhead 52. The control signals are applied to the printhead via cradle interfaces 84A, 84B, carriage interfaces 58A, 58B and flex PCB contacts at either end of printhead chip 52. Printhead chip 52 is bilithic, i.e. has two elongate chips that extend the length of the printhead, data is provided at either end of the printhead where it is transferred along the length of each chip to each individual nozzle. Power is provided to the individual nozzles of the printhead chips via the busbars that extend along the length of the chips. In response to received data and power, the individual nozzles of the printhead selectively eject ink onto the print media as it is drawn over the platen face of rotor element 60 thereby printing the image encoded in the data signal transmitted to USB port 130.

The Paragraph beginning at Page 24, lines 28-30, through to Page 25, line 1, is to be amended as follows:

Referring now to Figure 40, the first step of the ink refilling procedure is initiated by refill sensor ~~35~~(not shown) indicating to controller board 82 that there is a deficiency of printing fluid in storage reservoirs 28, 30, 32, 34. In response to the signal from the ink cartridge QA chip that the ink is nearly depleted, controller board 82 activates indicator LED 138 to inform the user that another refill is necessary.

The Paragraph beginning at Page 26, lines ¹¹~~15~~30, through to Page 27, lines 1-11, is to be amended as follows:

CA
8/31/07

Appin No. 10/760275

Amdt. Dated: December 21, 2006

Response to Office Action of October 19, 2006

2

Amendment to the Specification

The second paragraph beginning at Page ¹~~2~~, line ⁸~~7~~ through to page ²~~3~~ line ⁵~~4~~, is to be amended as follows:

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8/31/07**CROSS-REFERENCE TO CO-PENDING APPLICATIONS**

The following applications have been filed by the Applicant simultaneously with the present application:

10/760230	10/760225	10/760224
10/760242	10/760228	10/760250
10/760215	10/760256	10/760257
10/760240	10/760251	10/760266
10/760239	10/760193	10/760214
10/760260	10/760226	10/760269
10/760199	10/760241	10/760272
10/760273	10/760187	10/760182
10/760188	10/760218	10/760217
10/760216	10/760233	10/760246
10/760212	10/760243	10/760201
10/760185	10/760253	10/760255
10/760209	10/760208	10/760194
10/760238	10/760234	10/760235
10/760183	10/760189	10/760262
10/760232	10/760231	10/760200
10/760190	10/760191	10/760227
10/760207	10/760181	10/760254
10/760210	10/760202	10/760197
10/760198	10/760249	10/760263
10/760247	10/760223	10/760264
10/760244	10/760245	10/760222
10/760248	10/760236	10/760192
10/760203	10/760204	10/760205
10/760206	10/760267	10/760270
10/760259	10/760271	10/760275

AppIn No. 10/760275
Amdt. Dated: December 21, 2006
Response to Office Action of October 19, 2006

4

The paragraph beginning at Page ²⁴25, lines ²⁸~~3-6~~, is to be amended as follows:

Referring now to Figure 40, the first step of the ink refilling procedure is initiated by refill sensor 35 indicating to controller board 82 that there is a deficiency of printing fluid in storage reservoirs 28, 30, 32, 34. In response to the signal from the refill sensor~~ink-cartridge~~ ~~QA chip that the ink is nearly depleted~~, controller board 82 activates indicator LED 138 ~~to inform the user that another refill is necessary.~~

CH
8/31/07